CLAIMS

What is claimed is:

1. A heavy duty injection molded utility enclosure comprising:

a symmetrical floor assembly for enclosing the bottom of said heavy duty enclosure;

four L-shaped corner pillars for providing strength and rigidity to said enclosure;

a pair of side wall assemblies for enclosing the left side and right side of said heavy duty enclosure;

a rear wall assembly for enclosing the back of said heavy duty enclosure;

a door assembly for enclosing and providing ingress into and egress from said heavy duty enclosure;

a roof assembly for enclosing the top of said heavy duty enclosure system;

wherein a heavy duty enclosure can be shipped in a disassembled state and assembled on a desired site.

2. The heavy duty enclosure of claim 1 wherein said symmetrical floor assembly includes;

two pair of like-configured floor panel members for constructing said floor assembly, each of said floor members including, a top surface including a means of attaching said

floor assembly to said wall and said door assemblies, a bottom surface constructed and arranged to provide rigidity and stability to said floor assembly, a first locking edge constructed and arranged with a means to connect like-configured locking edges of said like-configured floor panels into said floor assembly, a second locking edge constructed and arranged with a means to connect like-configured locking edges of said like-configured floor panels into said floor assembly, a ramp edge for easy loading and unloading of said heavy duty enclosure, a closed edge for maintaining a weather resistant enclosure.

3. The heavy duty enclosure of claim 2 wherein said means to connect like-configured locking edges includes a series of spaced apart fingers and recesses along said first and said second locking edges of each said floor panel, each of said fingers being provided with at least one countersunk aperture for receiving a fastener, said fingers and recesses constructed and arranged so that said fingers overlap and mateably engage said recesses and said fasteners secure said floor panel members together in an inter-fitting engagement with their respective top surfaces in a co-planar arrangement.

4. The heavy duty enclosure of claim 2 wherein said floor panel members include a plurality of spaced apart tubes extending through each said floor panel under said top surface and above said bottom surface and extending between said first locking edge and said ramp edge, said tubes being constructed and arranged for adding increased weight capacity and stability to said enclosure.

5. The heavy duty enclosure of claim 2 wherein said means of attaching said side wall assemblies and said corner pillars to said floor assembly top surface includes a plurality of locking bosses arranged in a linear fashion adjacent to said closed edge and said ramp edge, said bosses extending upwardly from said top surface, said locking bosses constructed and arranged to cooperate with said corner pillars and said wall assemblies;

wherein said corner pillars and said side wall assemblies are secured to said floor panels via said locking bosses.

6. The heavy duty enclosure of claim 2 wherein said means of attaching said door assembly to said floor assembly top surface includes at least one hinge pin arranged adjacent to said locking posts and said ramp edge, said hinge pin

constructed and arranged to cooperate with said door assembly;

wherein said door assembly is allowed to open and close in a pivotal fashion.

7. The heavy duty enclosure of claim 2 wherein said means of attaching said rear wall assembly to said floor assembly top surface includes at least one hinge pin arranged adjacent to said locking posts and said ramp edge, said hinge pin constructed and arranged to cooperate with said door assembly and at least one double boss connector having a first boss end and a second boss end, said first end constructed and arranged for insertion into a socket located adjacent to said ramp edge of said floor assembly, said second boss end extending upwardly from said top surface of said floor assembly and constructed and arranged to cooperate with said rear wall panel sockets;

wherein said rear wall assemblies are secured to said floor panels via said locking bosses.

8. The heavy duty enclosure of claim 2 wherein said bottom surface includes integrally formed cross-bracing;

wherein said cross-bracing provides increased weight capacity and stability to said enclosure.

9. The heavy duty enclosure of claim 1 wherein said side wall assemblies includes at least four like-constructed side wall panel members for constructing a right side wall assembly and a left side wall assembly for said heavy duty enclosure system;

wherein said left side wall assembly includes two of said side wall panels and said right side wall assembly includes two of said side wall panels.

10. The heavy duty enclosure of claim 9 wherein said wall panel members include a first longitudinal end having an attachment means constructed and arranged to cooperate with a floor assembly or a roof assembly, a second longitudinal end having an attachment means constructed and arranged to cooperate with a floor assembly or a roof assembly, a first horizontal edge having an attachment means constructed and arranged to cooperate with a side wall panel member or a corner pillar member in an interlocking co-planar relationship, a second horizontal edge having an attachment means constructed and arranged to cooperate with a side wall panel member or a corner pillar member in an interlocking co-planar relationship.

11. The heavy duty enclosure of claim 10 wherein said first longitudinal end attachment means includes at least one integrally formed socket and said second longitudinal end attachment means includes at least one integrally formed socket.

12. The heavy duty enclosure of claim 10 wherein said first horizontal edge attachment means includes a ridge extending from about the first longitudinal end to about the second longitudinal end of said edge;

wherein said ridge is brought into an interlocking relationship with a corresponding groove in an adjacent pillar or wall panel resulting in a mechanically secure connection between said panels.

13. The heavy duty enclosure of claim 10 wherein said second horizontal edge attachment means includes a groove extending from about the first longitudinal end to about the second longitudinal end of said edge;

wherein said groove is brought into an interlocking relationship with a corresponding ridge in an adjacent pillar or wall panel resulting in a mechanically secure connection between said panels.

14. The heavy duty enclosure of claim 10 wherein said first horizontal edge attachment means includes at least one slot constructed and arranged for insertion of at least one T-connector, said at least one T-connector having a first end portion and a second end portion, wherein said first end portion of said at least one T-connector is inserted into said slot and rotated about ninety degrees to secure said at least one T-connector in place, wherein said second end portion of said at least one T-connector extends outwardly from said first horizontal edge for securing cooperation with an adjacent side wall panel;

wherein said second end portion of said T-connector is brought into an interlocking relationship with a corresponding key-hole slot in an adjacent corner pillar or wall panel resulting in a mechanically secure connection between said panels.

15. The heavy duty enclosure of claim 10 wherein said second horizontal edge attachment means includes at least one key-hole slot constructed and arranged for insertion of said second end portion of said at least one T-connector, wherein said second end portion of said at least one T-connector is inserted into said key-hole slot and slid downwardly to secure said at least one T-connector in place;

wherein said first end portion of said T-connector is secured in place in said first horizontal edge of an adjacent wall panel resulting in a mechanically secure connection between said panels.

16. The heavy duty enclosure of claim 1 wherein said rear wall assembly includes a pair of like-constructed rear wall panel members, said rear wall panel members having a first longitudinal end with an integral attachment means constructed and arranged to cooperate with a floor assembly or a roof assembly, a second longitudinal end having an attachment means constructed and arranged to cooperate with said roof or said floor assemblies, a first horizontal edge having an attachment means constructed and arranged to cooperate with a corner pillar member, a second horizontal edge constructed and arranged to cooperate with at least one panel member to provide a weather resistant seal.

17. The heavy duty enclosure of claim 16 wherein said first horizontal edge attachment means includes a semi-circular conduit extending from about said first longitudinal end to about the middle portion of said edge, said conduit having a generally circular aperture for accepting a dowel

centrally located within said middle portion end of said semi-circular conduit;

wherein said semi-circular conduit is brought into an overlapping relationship with a corresponding semi-circular conduit and a dowel pin enters said circular apertures in each conduit resulting in a mechanically secure connection between the two said panels.

18. The heavy duty enclosure system of claim 17 wherein said first horizontal edge attachment means includes a C-shaped annular portion integrally formed at about said second end of said first horizontal edge, a C-shaped annular portion formed in said semi-circular conduit at about said middle portion of said edge, and a hinge cap including an integrally formed C-shaped annular portion slidingly engaged into said corresponding cavity located in said first end of said door panel;

whereby said rear wall panels are attached to said interconnected floor panels, said corner pillars, and said roof panels by sliding said panel horizontally into place over said respective hinge pins and engaging a hinge clip adapted to close said each respective C-shaped annular portions to secure said panels to said hinge pins.

19. The heavy duty enclosure of claim 1 wherein said roof assembly includes at least two headers, a ridge cap assembly, and two pair of like-constructed roof panels.

20. The heavy duty enclosure of claim 19 wherein said roof assembly includes at least one support beam, wherein said at least one support beam provides increased structural load bearing capacity to said roof assembly.

21. The heavy duty enclosure of claim 20 wherein said support beam is constructed of steel.

22. The heavy duty enclosure of claim 20 wherein said support beam is constructed of plastic.

23. The heavy duty enclosure of claim 20 wherein said support beam is constructed of a composite material.

24. The heavy duty enclosure of claim 19 wherein said at least two headers include an outer surface, an inner surface, an upper surface, and a lower surface, wherein said upper surface includes a plurality of vents constructed and arranged to allow airflow through the enclosure while preventing weather related moisture from entering said

enclosure, wherein said lower surface includes a plurality of outwardly extending bosses constructed and arranged to cooperate with sockets located in said second end of said corner pillars, wherein said bosses are slid into the respective corner pillar sockets until the integrally formed spring tabs engage corresponding apertures formed in the corner pillar sockets, wherein said inner surface is constructed and arranged to cooperate with said at least one support beam.

25. The heavy duty enclosure of claim 19 wherein said inner surface of said at least two headers is constructed and arranged to cooperate with up to six support beams.

26. The heavy duty enclosure of claim 19 wherein said ridge cap assembly includes two like constructed portions each including an outer surface, a inner surface, a first locking end, and a second closed end, and a first and second edge, wherein said first locking end is constructed and arranged to cooperate with like constructed ridge caps for interfitting engagement, wherein said second closed end is constructed and arranged to resist weather infiltration, wherein said first and second edges include an attachment

means constructed and arranged to cooperate with said roof panels for weather resistant engagement.

27. The heavy duty enclosure of claim 26 wherein said ridge cap assembly includes a weatherstrip, said weatherstrip constructed and arranged to cooperate with said cooperating first ends of said like constructed ridge caps to provide a weather resistant seal therebetween.

28. The heavy duty enclosure of claim 26 wherein said inner surface of said ridge cap portions are constructed and arranged to cooperate with said at least one support beam to provide increased structural integrity to said enclosure.

29. The heavy duty enclosure of claim 28 wherein said ridge cap assembly includes at least one anti-lift strap for securing said ridge cap portions to said at least one support beams.

30. The heavy duty enclosure of claim 19 wherein said like-constructed roof panels include an outer surface, an inner surface, a first locking edge, a second locking edge, a first closed edge opposite said first locking edge, and a second closed edge opposite said second locking edge wherein

said first locking edge is constructed and arranged to cooperate with said first or said second edge of said ridge cap for weather resistant engagement, wherein said second locking edge is constructed and arranged to cooperate with a second locking edge of an adjacent roof panel for weather resistant engagement, wherein said inner surface is constructed and arranged with a means of attaching said roof panels to said wall panels.

31. The heavy duty enclosure of claim 30 wherein said means of attaching said roof panels to said wall panels includes a plurality of sockets arranged in a linear fashion adjacent to said first closed edge, wherein each said socket is constructed and arranged to cooperate with a connector for attachment to said sockets in said wall panel assemblies.

32. The heavy duty enclosure of claim 19 wherein said roof panels include a plurality of spaced apart structural tubes extending through each roof panel between said outer surface and said inner surface extending between said first locking edge and said first closed edge.

33. The heavy duty enclosure system of claim 32 wherein at least one of said tubes is constructed and arranged as a

socket within said first locking edge to for receiving at least one locking boss for attaching said like-configured roof panels to said ridge cap.

34. The heavy duty enclosure system of claim 1 wherein said door assembly includes a pair of like-constructed door panels each having a first longitudinal end including at least one integrally formed socket, said socket constructed and arranged to cooperate with a hinge means, a second longitudinal end including an integrally formed hinge means, a first horizontal edge having a semi-circular conduit extending from about said first longitudinal end to about the middle portion of said edge said conduit having an integrally formed hinge means, a second horizontal edge being generally flat.

35. The heavy duty enclosure system of claim 34 wherein said hinge means includes a C-shaped annular portion for accepting a hinge pin, said C-shaped annular portion constructed and arranged to cooperate with a hinge clip to close said annular portion and allow pivoting movement of said door panels;

wherein said C-shaped hinge means allows said door panels to be assembled to said enclosure without partial disassembly of other portions of said enclosure.